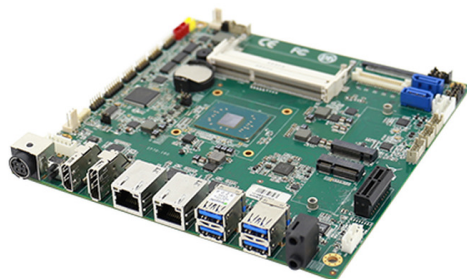


IP70 Intel(R) Pentium(R) N4200 Mini-ITX Embedded SBC

Manufacturer part number: IP70 | Embedded Board



Explore Winmate IP70, an industrial embedded board featuring Intel(R) Pentium(R) N4200, 170x170 resolution, IP70 for OEM equipment design and embedded control.

System Specification	
Processor	Intel Pentium N4200 1.1GHz (up to 2.5GHz)
Memory	Dual-channel (non-ECC) SO-DIMM RAM.Up to 16GB
Storage	128GB SSD(Default), 256GB SSD (Optional), 512GB SSD (Optional), 1TB, 2 x SATA III for 2.5" SSD/HDD(Supprt RAID) (Optional)
Ethernet controller	2 x Intel(R) Ethernet Controller
Security	TPM 2.0
Operating System	Windows 10 IoT Enterprise (64 bit) (Optional), Linux Ubuntu 20.04 (Optional)
WLAN	Support (Optional)
BT	Support (Optional)
IO Ports	
USB Port	4 x USB3.2 Gen1x1 (Type-A)
LAN	2 x Giga LAN RJ45 Connector
Video	1 x DP1.2 (Default), 1 x HDMI 1.4 (Optional), 1 x VGA (Optional)
Audio	1 x Mic in, 1 x Line out
Expansion Port	1 x M.2 2242 B-key Slot (for SATA III SSD), 1 x M.2 2230 E-Key Slot (for Wi-Fi module), 1 x PCIe 2.0 (x1) slot
Power Input	1 x 12V DC, Din4 pin connector
Internal IO Ports	
Power input	1 x 4pin(2x2) for 12V DC in, 1 x 6pin(1x6) for 12V DC in
Power output	2 x 2pin(1x2) red wafer for 5V DC out , 1 x 2pin(1x2) yellow wafer for 12V DC out
USB	2 x 8pin(2x4) for 4 x USB 2.0
Serial port	1 x 10pin(2x5) for RS232/422/485 (Default), 3 x RS232 (Optional)
Display	1 x 40pin DF13 connector for LVDS (Default), 1 x 30pin DF13 connector for eDP (Optional), 1 x 10pin P=2.0mm wafer for VGA (Optional)
Backlight	1 x 7pin(1x7) for panel backlight
SATA	2 x SATA III, 1 x 8pin(2x4) for SATA power, (SATA2 is only available when M.2 SATA is not in use;, SATA2 and M.2 SATA cannot be used concurrently.)
DIDO	1 x 14pin(2x7) for Digital input/output

VR	1 x 3pin(1x3) for Digital panel backlight brightness control, 1 x 3pin(1x3) VR/Software brightness switch jumper, 1 x 3pin(1x3) PWM/DC brightness switch jumper, 1 x 3pin(1x3) 3.3V/5V PWM Level switch jumper
Fan	2 x 3pin(1x3) for Fan
OSD	1 x 10pin(2x5) for OSD control
Speaker	2 x 2pin(1x2) for Speaker
Backup battery	1 x 2pin(1x2) for RTC battery
Certification	
Certification	CE, FCC
Mechanical	
Dimension	170 x 170 mm
Environment	
Operating Humidity	10% to 95% RH, Non-Condensing
Operating Temperature	0 deg C to 60 deg C
Storage Temperature	-40 deg C to 70 deg C
Accessory	
Accessory	1 x Installation Guide
Optional Accessory	1 x SATA cable (94H007Z070K0) (Optional), 1 x SATA Power cable (94HE08Z150E0) (Optional), 2 x COM cable (94G309E100E1) (Optional), 1 x 2-Port USB 2.0 Type A cable (94E808E080K0) (Optional), 1 x 12V 84W Adapter (922D084W12V0) (Optional), 1 x Power cord (Varies by country) (Optional), 1 x CPU Heatspreader with Fan (98K000A000N5) (Optional), 1 x Membrane (98K000A000N1) (Optional), 2 x Speaker (612620000007) (Optional)
Power	
Power Rating	12V DC in